



PATIENT

Moreno Miranda

PRESENTING CLINICAL SIGNS

History: Grade V/VI murmur, collapse, cough. No current medications.

SPECIES

Canine

BREED

Shih Tzu

SEX

Male

AGE

17 years

WEIGHT

11.6lbs

INTERPRETED BY

Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

IMAGING PERFORMED BY

Shari Reffi, CVT

HOSPITAL NAME

North Jersey Animal
Hospital

REFERRING VET

Dr. Shaw

ECHOCARDIOGRAM FINDINGS

2D, m-mode, color flow and doppler imaging is available. The mitral valve is diffusely thickened with minimal prolapse into the left atrial lumen. There is moderate eccentric mitral regurgitation present. Mild to moderate left atrial enlargement. Suspicion for a dilated coronary sinus and persistent left cranial vena cava. There is no left ventricular dilation. Left ventricular systolic function is adequate. There is normal systolic flow velocity across the aortic valve. The aortic valve appears trileaflet with normal mobility. The main pulmonary artery is dilated. Severe right atrial and ventricular enlargement. The tricuspid valve is thickened with septal prolapse and severe tricuspid regurgitation. Velocity consistent with moderate pulmonary hypertension (suspected to be an underestimation). Trace pulmonic insufficiency and no aortic insufficiency. Scant pericardial effusion. No pleural effusion or cardiac masses are seen. Ascites seen on sub-costal views.

CARDIAC CHART

CANINE CARDIAC PARAMETERS	MR VMAX (m/s)	TR VMAX (m/s)	LA/AO (Boon method)	LA/AO (Heart Base; Swe)	FS (%)	EF (%)	EPSS (cm)
NORMAL PARAMETER	4.5-5.5	<2.7	1.3	<1.6	28-40	40-100	<0.6
PATIENT	NM	4.2	1.8	1.5	38	71	0.3
CANINE CARDIAC PARAMETERS	HR (BPM)	AV VMAX (m/s)	PV MAX (m/s)	BODY WEIGHT (kg)	LA 2D short axis Base view (cm)	LVIDd Avg; 2D and m-mode short axis (cm)	LVIDs Avg; 2D and m-mode short axis (cm)
NORMAL PARAMETER	50-100	0.7-1.7	0.7-1.6	BELOW	BELOW	BELOW	BELOW
PATIENT	150	0.8	0.9	5.3	2.1	2.2	1.4
*Normal chamber parameters expressed as a mean value (SD)				3	1.27 (5.3)	2.46 (2.46)	1.36 (5.5)
BODY WEIGHT DEPENDENT PARAMETERS				5	1.40 (4.5)	2.74 (5.2)	1.60 (4.7)
<i>*Note: All measurements based upon multi-modal images and methods. An average value is reported.</i>				10	1.50 (3.8)	3.27 (3.5)	2.06 (3.1)
				15	1.83 (2.0)	3.71 (2.4)	2.43 (2.1)
				20	2.02 (1.9)	4.14 (2.2)	2.80 (2.0)
				25	2.18 (2.4)	4.48 (2.9)	3.10 (2.5)
				30	2.33 (3.3)	4.83 (3.9)	3.39 (3.4)
				35	2.48 (4.3)	5.17 (5.0)	3.69 (4.5)
				40	2.62 (5.2)	5.48 (6.1)	3.96 (5.4)
				50	2.88 (7.1)	6.07 (8.3)	4.46 (7.4)

INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS

Chronic degenerative valve disease causing moderate mitral and severe tricuspid regurgitation is identified. Mild to moderate left atrial dilation indicates the risk for spontaneous left-sided congestive heart failure is relatively low. There is suspicion for a PLCC, which is a congenital abnormality that is considered an incidental finding. Most importantly, there is significant pulmonary hypertension based upon the appearance of the right heart, which puts the patient at risk for right-sided congestion, and/or syncope. Given these findings, reported ascites and collapse are cardiogenic in origin and reflect right-sided CHF. Full lifelong cardiac supportive

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medications including diuretics are warranted as below. An abdominocentesis should be performed if the patient is uncomfortable or inappetent.

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Omega fatty acid supplementation and mild salt restriction may also be of some long-term benefit. Monitor for development of a worsening cough, labored breathing, exercise intolerance or worsening collapse episodes. Monitoring of sleeping breathing rates is recommended as the best way to screen for progression to CHF at home. Unfortunately, there is high risk for spontaneous CHF, worsening cough and/or malignant arrhythmias and sudden death in the future. The prognosis with this degree of disease is poor, with most dogs able to maintain a good QOL on medications for an average of 8-12 months.

BREED

Shih Tzu

SEX

Male

Elective anesthesia is not advised.

AGE

17 years

PLAN

Consider abdominocentesis if needed. Initiate spironolactone 1-2mg/kg PO q12h. Institute Sildenafil 1-2mg/kg PO 8h. Initiate Lasix 1-2mg/kg PO q12h. Initiate Pimobendan 0.25-0.3mg/kg PO q12h. If the cough is chronic with an acute increase, consider coverage with fluoroquinolone as well.

WEIGHT

11.6lbs

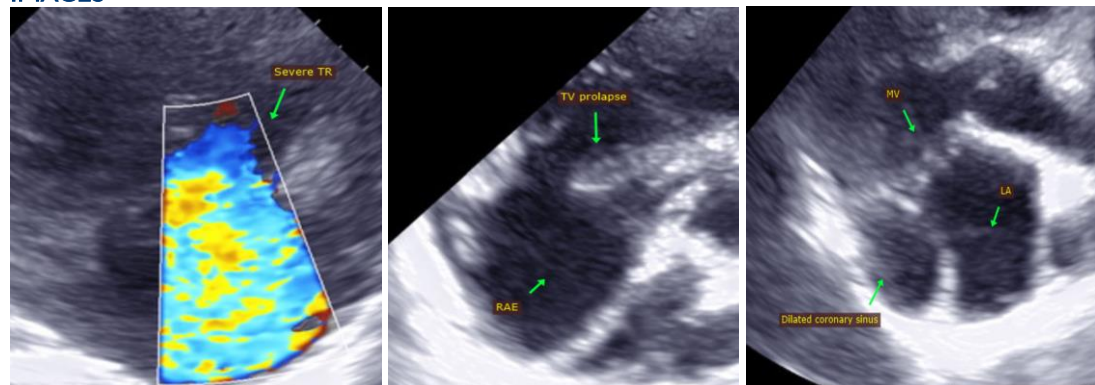
Recheck renal values and BP in 1-2 weeks, then every 3-4 months on diuretic therapy. If BP is >130mmHg and patient is doing well at home, institute ACEI 0.5mg/kg PO q12h (if hypotensive do not utilize).

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Maggie Machen Lamy,
DVM, DACVIM
(Cardiology)

A recheck echocardiogram is recommended in 4-6 months to screen for progression, sooner if

IMAGES



IMAGING PERFORMED BY

Shari Reffi, CVT

The information and recommendations provided are based on the images presented by the referring veterinarian. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

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Thank you for this referral. This report was generated using transcription software, and minor dictation errors may be present. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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Maggie Machen Lamy, DVM
Diplomate of the American College of Veterinary Internal Medicine (Cardiology)



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info@sonopath.com

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